

Alignment Between the South Dakota Content Standards and the WIDA Consortium English Language Proficiency Standards

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DRAFT

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Executive Summary

This report presents the results of an alignment study conducted in Sioux Falls, South Dakota on June 2, 3, 4, 10, and 11, 2008. The alignment protocol is based on Cook's (2005, 2006, 2007) adaptation of Webb's (1997) alignment framework; for this study Cook's framework was used to examine the relationship between South Dakota Content Standards (academic content standards) in Reading, Mathematics, and Science and the model performance indicators (MPIs) within the WIDA English Language Proficiency (ELP) Standards.

What is alignment?

Federal guidance refers to two criteria to evaluate the relationship between English language proficiency standards and a state's academic content standards: linking and alignment (U.S. Department of Education, Office of English Language Acquisition, February 2003). Linking is required as a minimum criterion; alignment, the higher criterion, is encouraged. In our conceptualization, alignment is the combination of linking (match between standards) and correspondence (comprised of depth and coverage). *Depth* refers to similarity of cognitive complexity and *coverage* to similarity in dispersion. Each aspect of the alignment has associated statistics: *Link*, *Depth of Knowledge (DOK) Consistency* (depth), and *Coverage* (breadth). Alignment is a higher criterion as it not only examines whether there is a match between standards (linking), but also establishes whether there is strong cognitive correspondence between standards and whether a state's content goals within a content standard have corollary English proficiency expectations (correspondence).

Results

Linking

Results suggest strong linkage across all grade clusters between the Model Performance Indicators (MPIs) in the WIDA English Language Proficiency (ELP) Standards and the three academic content standards investigated in this study. We therefore conclude that the relationship between South Dakota Content Standards in Reading, Mathematics, and Science and MPIs within the WIDA Consortium ELP standards meets the *No Child Left Behind Act of 2001* (NCLB) requirements, with some limitations in Reading grade 6 and 8, in Mathematics grade K, 3, and 5, and in Science grade 1, 2, 6, and 9 -12.

Correspondence

As stated above, federal guidance encourages states to meet a higher standard, i.e., alignment. Our analyses indicate that the Depth criterion is largely met for Reading, Mathematics, and Science. In addition, Coverage tends to be somewhat limited for the three content areas. Overall, we conclude that while the alignment criteria as defined here are not entirely met, South Dakota Content Standards in Reading, Mathematics, and Science align moderately with the MPIs within the WIDA ELPs.

1. Introduction

Background

This study was an evaluation of the alignment between the South Dakota Content Standards and the WIDA English Language Proficiency Standards in the areas of Reading, Mathematics and Science. Webb's (1997) alignment methodology, which has traditionally been used to evaluate the alignment between academic content standards and academic content assessments, has recently been adapted to study the alignment between different sets of standards (e.g., English language proficiency and academic content). Cook (2005) explains that more of a one-to-one correspondence is expected when aligning two sets of standards than when examining the alignment between a set of standards and an assessment. Thus, the criteria for acceptable levels of key alignment statistics are different for standards-to-standards alignment than for test-to-standards alignment.

The text below is drawn from federal non-regulatory guidance as it relates to English language proficiency standards and the issue of alignment.

B-3. What is the relationship between English language proficiency standards, English language proficiency annual measurable achievement objectives, and English language proficiency assessment?

English language proficiency standards *must, at a minimum, be linked* [bolding not in original] to the State academic content and achievement standards. States *are encouraged, but not required, to align* [bolding not in original] English language proficiency standards with academic content and achievement standards. Annual measurable achievement objectives for English language proficiency serve as targets for achievement of the English language proficiency standards. English language proficiency assessments must be aligned with English language proficiency standards and provide a means of demonstrating progress towards meeting the English language proficiency annual measurable achievement objectives. (U.S. Department of Education, Office of English Language Acquisition, February 2003, pp.9, 10).

Note the italicized, highlighted phrases in the text above. Herein the federal government has expanded upon the notion of alignment, traditionally seen as a relationship between standards and assessments, to include the relationship between a state's English language proficiency standards and its academic content standards. Guidance sets forth a minimum criterion of

linking student expectations and offers the “gold standard” as alignment. While little research is available describing the nature and scope of linking one set of standards to another, there has been work examining alignment between standards.

Alignment Methods

The alignment of assessment systems to state standards (test-to-standards alignment) has gained prominence in recent years. NCLB requires alignment of state assessments to state standards. The notion of alignment is not new. Alignment is and has been a mechanism for assuring a test’s content validity. In years past, however, alignment was often evaluated in a very ad hoc fashion. Typically, alignment activity was conducted during a test’s item review. Content experts reviewed assessment items and determined if items matched test specifications, test framework documents, or standards. The primary purpose in this type of alignment was to assure that a test item matched a specification, framework or standard. Researchers have argued that there is more to alignment than just matching (see La Marca, et al., 2001; Webb 1997, 2002; and Rothman, et al., 2002). Alignment refers not only to matching items to standards but also to ascertaining the breadth and the cognitive depth of items relative to standards.

A variety of alignment strategies and methodologies exist (see CCSSO, 2002 & 2007). One of the most prominent methods used today is that created by Dr. Norman Webb of the Wisconsin Center for Educational Research. The Webb approach to alignment evaluates item match, cognitive complexity (or depth), and breadth of coverage. Each alignment component (match, depth, breadth) has associated statistics.

To evaluate match, the statistic Categorical Concurrence is used. Categorical Concurrence refers to the average number of items raters assign to specific standards or curricular goals. Raters select specific standards, goals or objectives that match to individual test items on rated tests. The numbers of coded items are averaged across all raters and reported as Categorical Concurrence. Think of this statistic as a proxy for average numbers of items raters believe address a specific standard or objective. With this methodology, items can address more than one standard, and raters are allowed to code accordingly.

To evaluate depth, raters judge the Depth of Knowledge (DOK) of standards, goals and/or objectives and the DOK of test items. Depth of knowledge can be defined in a variety of ways. Webb argues that,

Standards vary on the complexity of what students are expected to know and do. Some standards simply expect students to reproduce a fact or complete a sequence of steps while others expect students to reason, extend their thinking, synthesize information from multiple sources, and produce significant work over time. Alignment on depth-of-knowledge is achieved when the assessment and standards agree on the cognitive level students are expected to demonstrate and are asked to perform.

Webb identifies four DOK levels:

- Level 1 Recall and Reproduction,
- Level 2 Skills and Concepts,
- Level 3 Strategic Thinking, and
- Level 4 Extended Thinking.

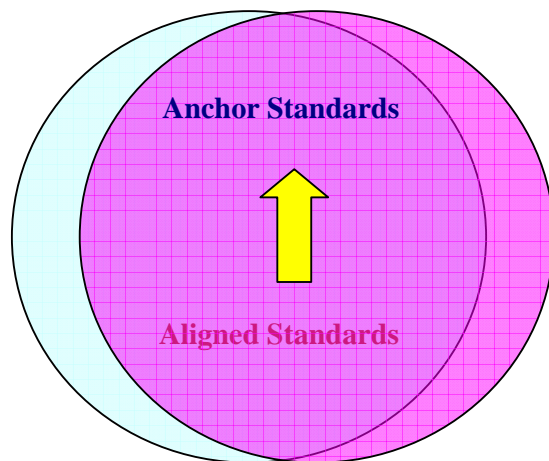
During the alignment process test items and standards are assigned unique DOK levels, and these levels are compared to identify their correspondence. The final component analyzed in a Webb alignment is breadth. Two statistics are associated with breadth: Range and Balance. The Range “criterion is met if a comparable span of knowledge expected of students by a standard is the same as, or corresponds to, the span of knowledge that students need in order to correctly answer the assessment items/activities” (Webb, 2001). If test items are identified with most, if not all, relevant objectives in a standard, then it is said that there is good Range. In essence, Range examines whether all objectives within a goal or standard are adequately covered. The second statistic examining breadth is Balance. Balance refers to the “degree to which one objective is given emphasis on the assessment is comparable to the emphasis given to the other objectives within a standard” (Webb, 2001).

Standards-to-Standards Alignment Criteria

Webb alignments focus on state tests and state academic content standards, usually in the areas of reading and mathematics. The federal linking or alignment guidance described above differs. Instead of examining test-to-standards (i.e., Webb’s approach), requirements suggest conducting standards-to-standards investigations, be they linking or alignment. A variety of procedures have been developed to “align” curriculum in education (Anderson, 2002). A very prominent example is the Surveys of Enacted Curriculum (Porter and Smithson, 2001 and Blank, 2002). With this approach, researchers examine relationships between standards, instructional practices, and assessments. The power of this approach is to unveil how standards-based, assessment evaluated systems are realized in the classroom. This approach

is very comprehensive and informative. It does not solely focus on examining two sets of standards per se. Undoubtedly, it could be adapted to accomplish this. Another approach to examine standard-to-standard relationships has been applied to sets of standards using a modified version of the Webb alignment procedure (Cook, 2005). With this method, Cook aligned a state's academic framework to a district's learning targets. The goal of this alignment was to communicate the association between the district's standards and the state's standards for assessment. The district's learning targets were developed to support the state's assessment framework, as such good alignment was anticipated between these two sets of student expectations. Close correspondence, however, might not always be the expectation in a standards-to-standards alignment. This distinction is highlighted by the figures below.

Figure 1: Standards-to-Standards Alignment of Highly Similar Constructs



In Figure 1, the anchor standards are defined as expectations that one aligns to, e.g., state standards/ assessment frameworks, and aligned standards are expectations to be aligned, e.g., learning targets. For example, one might align one set of mathematics standards at 4th grade to another set of mathematics standards at 4th grade. A high degree of overlap (i.e., match, depth and breadth) would represent good alignment. Note, however, that Figure 1 portrays alignment between highly similar constructs—in our example 4th grade mathematics. Would this be the expected alignment between associated constructs, say between elementary, mathematics academic language standards for grades 3 through 5 and 4th grade mathematics content standards? Probably not. Continuing this line of reasoning, alignment between language proficiency standards and academic content standards is best reflected in Figure 2. Were Figure 1 the target, why have different standards?

Figure 2: Standards-to-Standards Alignment of Associated Constructs

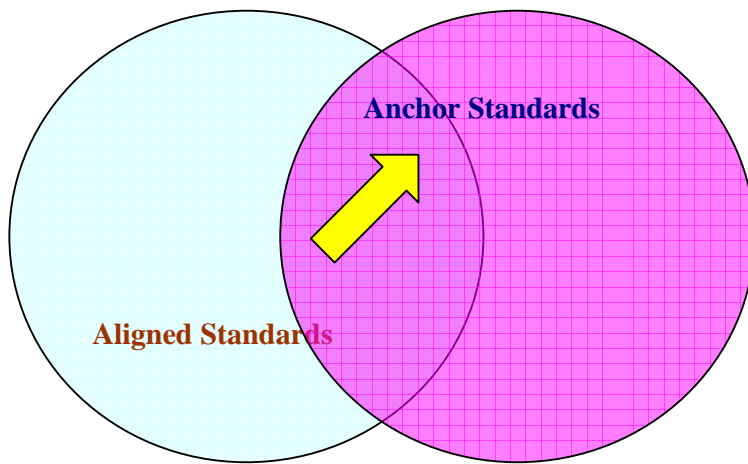


Figure 2 portrays association between two sets of standards—the association of related but not identical expectations. The distinction between academic content standards-to-standards alignment and English language proficiency standards-to-standards alignment is what is being compared. In content alignment, subject matter expectations are being compared. In an English language proficiency alignment, content register relationships are being compared. The register used in subject areas like mathematics, science or language arts are subsets of the content domain. As a result, the criterion for alignment should differ.

As stated earlier, federal guidance identifies two notions related to academic content and language proficiency standards alignment: link and align. We interpret the term *alignment* mentioned in federal guidance to be that reflected by Figure 2. That is, strong alignment between English language proficiency standards and academic content standards **ARE NOT** one-to-one correspondences. What then does alignment mean?

Linking

First, a state's English language proficiency standards must be, at a minimum, linked to its academic content standards. **By linked, at least one aligned content standard in each assessed subject must be represented in the English language proficiency standards at each grade cluster.** An example will help clarify this criterion. Table 1 displays elements of the National Council of Teachers of Mathematics (NCTM) standards. Let us assume that Table 1 reflects a state's mathematics standards at a particular grade. To be appropriately linked, linguistic elements (i.e., phonological, lexical, grammatical, sociolinguistic)

associated with Number Operations, Algebra, Geometry, Measurement, and Data Analysis and Probability would need to be reflected in the English language proficiency standards for speaking, listening, reading or writing at the grade span associated with this standard. A language proficiency standard requiring students to orally describe groups of and/or sequences of objects, figures or numbers would be consistent with Number and Operations. Another standard might have students read a graph or figure representing numeric relationships. This standard could be linked to Algebra and possibly Data Analysis and Probability. Linking assures that register elements associated with the language of mathematics are included in language proficiency standards.

Table 1: NCTM Standards

Standards	Goals
Number and Operations	<ol style="list-style-type: none"> 1. Understand numbers, ways of representing numbers, relationships among numbers, and number systems; 2. Understand meanings of operations and how they relate to one another; 3. Compute fluently and make reasonable estimates;
Algebra	<ol style="list-style-type: none"> 1. Understand patterns, relations, and functions; 2. Represent and analyze mathematical situations and structures using algebraic symbols; 3. Use mathematical models to represent and understand quantitative relationships; 4. Analyze change in various contexts;
Geometry	<ol style="list-style-type: none"> 1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships; 2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems; 3. Apply transformations and use symmetry to analyze mathematical situations; 4. Use visualization, spatial reasoning, and geometric modeling to solve problems;
Measurement	<ol style="list-style-type: none"> 1. Understand measurable attributes of objects and the units, systems, and processes of measurement; 2. Apply appropriate techniques, tools, and formulas to determine measurements;
Data Analysis and Probability	<ol style="list-style-type: none"> 1. Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them; 2. Select and use appropriate statistical methods to analyze data; 3. Develop and evaluate inferences and predictions that are based on data; 4. Understand and apply basic concepts of probability;

Correspondence

Federal guidance states that linking is a minimum criterion. Alignment is encouraged. WIDA

Consortium conceptualizes **alignment as the combination of linking and correspondence**.

Table 2 shows this relationship. Linking describes the match between standards.

Correspondence includes Depth and Breadth. For Depth, we adopt a criterion of 40%. That is, 40% of linked English language proficiency standards should be at or above the Depth of Knowledge (DOK) level of the content standards to reflect strong cognitive correspondence between standards. The DOK criterion associates with Scarcella's (2003) cognitive dimension, including higher-order thinking, strategic competence, and metalinguistic awareness. A 40% DOK criterion establishes challenging but attainable expectations.

Table 2: English Language Proficiency to Academic Content Standard Standard-to-Standard Alignment Criteria

Scope		Criterion	
Alignment	Link	Match	At least one aligned content standard across skill domains, as agreed upon by a majority of raters
	Correspondence	Depth	At least a 40% DOK across skill domains
		Breadth	At least moderate Coverage of goals across domains where: Limited ≤ 1 goal aligned for each standard, Moderate > 1 goal aligned for each standard, Strong = a majority of goals aligned for each standard

The second aspect of Correspondence is Breadth. The Breadth criterion relates to the number of goals within a standard that are aligned. In Table 1, we see there are 3 goals for Number and Operations, 4 goals for Algebra, 4 goals for geometry, 2 goals for Measurement, and 4 goals for Data Analysis and Probability. Moderate breadth would mean that more than one goal in the math standards is associated with the language proficiency standards. Strong breadth would mean a majority of a state's content goals within a content standard have corollary English language proficiency expectations. As with the DOK criterion, this is an aggressive but obtainable expectation.

For adequate alignment, we suggest that a state's English language proficiency standards should meet the linking criterion, the DOK criterion, and have moderate or greater breadth of coverage. Were language proficiency standards to have this degree of alignment, we believe greater attention would be given to Academic English in the classroom and on language proficiency assessments. Given Gottlieb's (2006) conviction that Academic English language proficiency is a precursor to academic achievement, good alignment would promote students' progress in English, which could directly affect annual measurable achievement objective

(AMAO) goals. This type of alignment would move states toward best practice in language instruction and assessment.

Standards Aligned in this Study

The following are brief descriptions of the two sets of standards aligned in this study:

South Dakota Content Standards

The South Dakota *Content Standards* articulate an essential core of knowledge and skills and clarify what students are expected to *know* and be able to *do* at various points. Within each content domain, standards are organized by grade level (end of second, fifth, eighth and twelfth) and include several reporting categories. Within each reporting category are specific topics (organizers) that categorize the standards.

The Content Standards for Reading includes the following five reporting categories:

- Students can recognize and analyze words
- Students can comprehend and fluently read text
- Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses.
- Students can interpret and respond to diverse, multicultural, and time period text
- Students can access, analyze, synthesize, and evaluate informational texts.

The Content Standards for Mathematics includes the following five reporting categories:

- Algebra
- Geometry
- Number Sense
- Measurement
- Statistics and Probability

The Content Standards for Science includes the following five reporting categories:

- Nature of Science
- Physical Science
- Life Science
- Earth/Space Science
- Science, Technology, Environment, and Society

WIDA English Language Proficiency Standards

The WIDA English Language Proficiency Standards (WIDA, 2004) are comprised of the following five standards:

1. English language learners communicate in English for SOCIAL AND INSTRUCTIONAL purposes within the school setting.
2. English language learners communicate information, ideas, and concepts necessary for academic success in the content area of LANGUAGE ARTS.
3. English language learners communicate information, ideas, and concepts necessary for academic success in the content area of MATHEMATICS.
4. English language learners communicate information, ideas, and concepts necessary for academic success in the content area of SCIENCE.
5. English language learners communicate information, ideas, and concepts necessary for academic success in the content area of SOCIAL STUDIES.

Each standard covers four language domains: listening, speaking, reading, and writing. The model performance indicators for each standard are organized into four grade-level clusters (K-2, 3-5, 6-8, and 9-12) and two frameworks: classroom assessment and large-scale assessment. Within each framework, grade cluster and language domain, there are model performance indicators for each language proficiency level. The model performance indicators are functional, measurable indices of the language domains (listening, speaking, reading, and writing) and aimed at the targeted age/developmental levels of English language learners. As their label implies, model performance indicators are merely examples that have been drawn from a myriad of English language proficiency and state academic content standards. There are three components of a model performance indicator: 1) function (how the students use language), 2) content (what the students are expected to communicate), and 3) modality (how the students process the input either through oral or written language). For some indicators, there are suggested topics that add clarity or specificity; these ideas are introduced by the phrase “such as.” Other indicators have “e.g.,” followed by an example of an expected language pattern that students may use in their response.

At times, there are two strands of model performance indicators within a grade level cluster; committee members of the document felt that these additions were necessary to create a closer alignment with state academic content standards. A visual layout of the components of the standards is displayed in Figure 5. The English language proficiency levels head each column and the grade level clusters begin each row. The remaining cells contain at least one model performance indicator, creating a strand or strands across proficiency levels within a grade level cluster. (Figure 3 points to an example of a strand of performance indicators for grade level cluster 3-5.)

Figure 3. The Format of the English Language Proficiency Standards for Large-scale State and Classroom Frameworks

English Language Proficiency Levels

Grade Level Cluster	Level 1 Entering	Level 2 Beginning	Level 3 Developing	Level 4 Expanding	Level 5 Bridging
K-2					
3-5					
6-8					
9-12					

Model Performance Indicator(s)

A Strand of Model Performance Indicators (through grade level cluster)

The five language proficiency levels covered in the WIDA Consortium ELP standards are

- Level 1 – Entering;
- Level 2 – Beginning;
- Level 3 – Developing;
- Level 4 – Expanding; and
- Level 5 – Bridging.

Participants and Review Process

The alignment workshop was conducted in Sioux Falls, South Dakota on June 2, 3, 4, 10, and 11, 2008. Forty-six South Dakota teachers served as alignment committee members. The participants were grouped into the following committees:

- Reading Grades K to 2;
- Reading Grades 3 to 5;
- Reading Grades 6 to 8;
- Reading Grades 9 to 12;
- Mathematics Grades K to 2;
- Mathematics Grades 3 to 5;
- Mathematics Grades 6 to 8;
- Mathematics Grades 9 to 12;
- Science Grades K to 2;
- Science Grades 3 to 5;
- Science Grades 6 to 8;
- Science Grades 9 to 12

The following are the names of the participants, their grade cluster, and area of expertise:

Table 3: Alignment Study Participants

Grade Cluster	Participant Name
K-2	Nancy Kusters
K-2	Michele Perrizo
K-2	Anita Malsam
K-2	Beth Renner
K-2	Lindsay Borgman
K-2	Nora Branson
K-2	Mary Johnson
K-2	Kathy Valhes
K-2	Karen Jaskulka
K-2	Carol Lacher
K-2	Melissa Mebius
K-2	Leesa Haugland
3-5	Marti Wells
3-5	Diane Herrold
3-5	Mary Erickson

Grade Cluster	Participant Name
3-5	Shari Kvistero
3-5	Cheryl Bennett
3-5	Kristi Desaulniers
3-5	Sharol Erdmann
3-5	Janet Evans
3-5	Jackie McNamara
3-5	Cher May
3-5	Shanna Wagers
3-5	Robin Williams
6-8	Robin Sisson
6-8	Cheryl Malsom
6-8	Amy Miller
6-8	Arlene Schneider
6-8	Josh Dunnell
9-12	Jeanne Green
9-12	Carol Nangle
9-12	Susan Torres
9-12	Theresa Kashale
9-12	Kent Wells
9-12	R.L. Erion
9-12	Dottie LeBeau
9-12	Marianne Fridell

To facilitate the alignment workshop, external consultants from the Wisconsin Center for Education Research (WCER) and the University of Illinois at Urbana-Champaign facilitated each of the four groups of South Dakota committee members who reviewed the assessments.

An intensive training was provided to all committee members, explaining Webb’s alignment model and the three alignment criteria and the use of the web-based alignment tool. The general training included an overview of the alignment process and a brief description of the standards that would be reviewed. After the general session, the committee members broke into subject area groups to learn how to apply the *DOK* levels to standards in their respective grade levels. All participants reviewed the definitions of the four levels of *DOK* and sample standards at each level during the content-related training. Following the content-related training, committee members split into the grade-level groups to continue the alignment process. The process involved five steps:

Step One – Committee members read the South Dakota Reading, Mathematics and Science standards and reached consensus on the appropriate *DOK* level for each objective.

Step Two – As training for the review process, each team of Committee members independently coded a sample of model performance indicators drawn from the WIDA standards and then discussed the *DOK* levels and the South Dakota standards that they had assigned to each of the WIDA standards. Committee members were encouraged to assign only one South Dakota content standard to each WIDA MPI unless the WIDA MPI clearly assessed more than one standard. In cases where a WIDA MPI did not adequately describe the knowledge and skills assessed, committee members could assign secondary and tertiary standards. Committee members were not required to reach agreement on the *DOK* assigned to a WIDA MPI. Instead, they discussed the rationale for the assignments to help each other reach a clearer understanding of *DOK* levels and the Reading, Mathematics and Science model performance indicators (MPIs) of the WIDA ELP Standards.

Step Three – Committee members independently coded the WIDA model performance indicators in Reading, Mathematics and Science for each grade level, identified a South Dakota standard to which each one most closely matched, and noted any issues or sources of challenge related aligning the South Dakota and WIDA standards. Committee members coded the WIDA MPIs in a different sequence to avoid the order of test review affecting the results of the alignment study.

Step Four – After all of the WIDA MPIs in one grade level were reviewed, the Committee members discussed the results as a group. Committee members discussed MPIs for which fewer than 50% of them agreed on the *DOK* level. Again, committee members were not required to reach agreement on the *DOK* level assigned to a MPI. Instead, they discussed the rationale for their assignments and changed their assignments only if they felt they had assigned the wrong *DOK* level to a WIDA MPI. Committee members did not know whether other committee members kept or changed their ratings.

Step Five – Committee members participated in a debriefing session for each grade level. They had been encouraged to complete a debriefing questionnaire for each test as they reviewed it and to use their notes in the discussion session. During this session, the committee members provided their impressions about the degree of alignment between the two sets of standards.

The same process was applied to each grade level. At the conclusion of the alignment workshop, committee members were asked to complete an evaluation questionnaire to

provide feedback about the alignment review process.

2. Results

Reading Alignment Results

Based on the alignment criteria specified above, Table 4 below presents findings from the alignment between the South Dakota Reading standards and the WIDA ELP MPIs in Reading. The first set of columns presents alignment statistics and the second displays alignment findings based on the criteria set forth in the previous section.

For all grade clusters, the Linking criterion was strongly met for each grade except *Students can interpret and respond to diverse, multicultural, and time period text* for grade 6 and 8

Table 5 through 8 summarizes reading alignment results across grade clusters. Again, to meet Linkage criteria at least 1 linked WIDA standard should be identified for each reporting category across grades. To meet correspondence criteria DOK should be $\geq 40\%$ across each reporting category, and there should be moderate or strong coverage across reporting categories. Adequate alignment would be represented by acceptable Linking and Correspondence.

Table 4: Summary of Alignment for Reading across Grades K-12

Standards	(Standards-to-Standards) Alignment Criteria					
	Alignment Statistics			Alignment Findings		
	Linked	Correspondence		Linked	Correspondence	
		DOK	Coverage		DOK (40%)	Coverage
Grade K (with 4 Panelists)		79%				
K.1 - Students can recognize and analyze words.	17	86%	3 of 3	YES	YES	STRONG
K.2 - Students can comprehend and fluently read text.	10	63%	3 of 3	YES	YES	STRONG
K.3 - Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses.	15	79%	1 of 3	YES	YES	MODERATE
K.4 - Students can interpret and respond to diverse, multicultural, and	1	100%	1 of 1	YES	YES	STRONG

Standards	(Standards-to-Standards) Alignment Criteria					
	Alignment			Alignment Findings		
	Statistics					
	Linked	Correspondence		Linked	Correspondence	
		DOK	Coverage		DOK (40%)	Coverage
time period text.						
K.5 - Students can access, analyze, synthesize, and evaluate informational texts.	3	100%	1 of 2	YES	YES	STRONG
Grade 1 (with 4 Panelists)		66%				
1.1 - Students can recognize and analyze words.	12	67%	3 of 7	YES	YES	STRONG
1.2 - Students can comprehend and fluently read text.	19	57%	2 of 3	YES	YES	STRONG
1.3 - Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses.	12	70%	3 of 4	YES	YES	STRONG
1.4 - Students can interpret and respond to diverse, multicultural, and time period text.	5	49%	1 of 1	YES	WEAK	STRONG
1.5 - Students can access, analyze, synthesize, and evaluate informational texts.	2	83%	0 of 2	YES	YES	LIMITED
Grade 2 (with 4 Panelists)		56%				
2.1 - Students can recognize and analyze words.	9	80%	2 of 2	YES	YES	STRONG
2.2 - Students can comprehend and fluently read text.	17	51%	2 of 2	YES	YES	STRONG
2.3 - Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses.	6	45%	2 of 3	YES	WEAK	STRONG
2.4 - Students can interpret and respond to diverse, multicultural, and time period text.	7	43%	2 of 2	YES	WEAK	STRONG

Standards	(Standards-to-Standards) Alignment Criteria					
	Alignment Statistics			Alignment Findings		
	Linked	Correspondence		Linked	Correspondence	
		DOK	Coverage		DOK (40%)	Coverage
2.5 - Students can access, analyze, synthesize, and evaluate informational texts.	3	58%	1 of 2	YES	YES	STRONG
Grade 3 (with 4 Panelists)		59%				
3.1 - Students can recognize and analyze words.	6	100%	1 of 1	YES	YES	STRONG
3.2 - Students can comprehend and fluently read text.	22	48%	2 of 2	YES	WEAK	STRONG
3.3 - Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses.	10	29%	2 of 2	YES	NO	STRONG
3.4 - Students can interpret and respond to diverse, multicultural, and time period text.	4	35%	1 of 1	YES	NO	STRONG
3.5 - Students can access, analyze, synthesize, and evaluate informational texts.	4	87%	3 of 3	YES	YES	STRONG
Grade 4 (with 4 Panelists)		68%				
4.1 - Students can recognize and analyze words.	6	75%	1 of 2	YES	YES	STRONG
4.2 - Students can comprehend and fluently read text.	25	85%	3 of 3	YES	YES	STRONG
4.3 - Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses.	10	57%	1 of 3	YES	YES	MODERATE
4.4 - Students can interpret and respond to diverse, multicultural, and time period text.	7	61%	1 of 1	YES	YES	STRONG
4.5 - Students can access, analyze, synthesize, and evaluate	6	58%	2 of 2	YES	YES	STRONG

Standards	(Standards-to-Standards) Alignment Criteria					
	Alignment			Alignment Findings		
	Statistics					
	Linked	Correspondence		Linked	Correspondence	
		DOK	Coverage		DOK (40%)	Coverage
informational texts.						
Grade 5 (with 4 Panelists)		61%				
5.1 - Students can recognize and analyze words.	10	75%	2 of 2	YES	YES	STRONG
5.2 - Students can comprehend and fluently read text.	15	73%	2 of 2	YES	YES	STRONG
5.3 - Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses.	9	65%	2 of 3	YES	YES	STRONG
5.4 - Students can interpret and respond to diverse, multicultural, and time period text.	10	34%	1 of 1	YES	NO	STRONG
5.5 - Students can access, analyze, synthesize, and evaluate informational texts.	4	48%	1 of 3	YES	WEAK	MODERATE
Grade 6 (with 5 Panelists)		52%				
6.1 - Students can recognize and analyze words.	9	9%	2 of 2	YES	NO	STRONG
6.2 - Students can comprehend and fluently read text.	7	63%	2 of 2	YES	YES	STRONG
6.3 - Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses.	3	13%	1 of 3	YES	NO	MODERATE
6.4 - Students can interpret and respond to diverse, multicultural, and time period text.	0	98%	0 of 1	NO	YES	LIMITED
6.5 - Students can access, analyze, synthesize, and evaluate informational texts.	6	89%	1 of 3	YES	YES	MODERATE

Standards	(Standards-to-Standards) Alignment Criteria				
	Alignment			Alignment Findings	
	Statistics				
	Linked	Correspondence		Linked	Correspondence
		DOK	Coverage		DOK (40%) Coverage
Grade 7 (with 5 Panelists)		60%			
7.1 - Students can recognize and analyze words.	7	9%	2 of 2	YES	NO STRONG
7.2 - Students can comprehend and fluently read text.	11	55%	2 of 2	YES	YES STRONG
7.3 - Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses.	3	67%	0 of 3	YES	YES LIMITED
7.4 - Students can interpret and respond to diverse, multicultural, and time period text.	3	96%	1 of 1	YES	YES STRONG
7.5 - Students can access, analyze, synthesize, and evaluate informational texts.	3	79%	2 of 4	YES	YES STRONG
Grade 8 (with 5 Panelists)		60%			
8.1 - Students can recognize and analyze words.	5	11%	1 of 1	YES	NO STRONG
8.2 - Students can comprehend and fluently read text.	11	29%	1 of 2	YES	NO STRONG
8.3 - Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses.	2	89%	1 of 2	YES	YES STRONG
8.4 - Students can interpret and respond to diverse, multicultural, and time period text.	0	94%	0 of 1	NO	YES LIMITED
8.5 - Students can access, analyze, synthesize, and evaluate informational texts.	5	70%	0 of 3	YES	YES LIMITED
Grade 9 (with 4 Panelists)		64%			

Standards	(Standards-to-Standards) Alignment Criteria					
	Alignment			Alignment Findings		
	Statistics					
	Linked	Correspondence		Linked	Correspondence	
		DOK	Coverage		DOK (40%)	Coverage
9.1 - Students can recognize and analyze words.	4	0%	1 of 1	YES	NO	STRONG
9.2 - Students can comprehend and fluently read text.	7	85%	2 of 2	YES	YES	STRONG
9.3 - Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses.	3	68%	1 of 1	YES	YES	STRONG
9.4 - Students can interpret and respond to diverse, multicultural, and time period text.	4	85%	1 of 1	YES	YES	STRONG
9.5 - Students can access, analyze, synthesize, and evaluate informational texts.	2	64%	2 of 2	YES	YES	STRONG
Grade 10 (with 4 Panelists)		63%				
10.1 - Students can recognize and analyze words.	3	6%	1 of 1	YES	NO	STRONG
10.2 - Students can comprehend and fluently read text.	9	53%	2 of 2	YES	YES	STRONG
10.3 - Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses.	6	85%	1 of 1	YES	YES	STRONG
10.4 - Students can interpret and respond to diverse, multicultural, and time period text.	3	91%	1 of 1	YES	YES	STRONG
10.5 - Students can access, analyze, synthesize, and evaluate informational texts.	1	100%	1 of 1	YES	YES	STRONG
Grade 11 (with 4 Panelists)		66%				
11.1 - Students can recognize and analyze words.	2	0%	1 of 1	YES	NO	STRONG

Standards	(Standards-to-Standards) Alignment Criteria					
	Alignment			Alignment Findings		
	Statistics					
	Linked	Correspondence		Linked	Correspondence	
		DOK	Coverage		DOK (40%)	Coverage
11.2 - Students can comprehend and fluently read text.	3	74%	1 of 2	YES	YES	STRONG
11.3 - Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses.	8	81%	1 of 1	YES	YES	STRONG
11.4 - Students can interpret and respond to diverse, multicultural, and time period text.	6	92%	1 of 1	YES	YES	STRONG
11.5 - Students can access, analyze, synthesize, and evaluate informational texts.	2	81%	1 of 1	YES	YES	STRONG
Grade 12 (with 4 Panelists)		40%				
12.1 - Students can recognize and analyze words.	3	14%	1 of 1	YES	NO	STRONG
12.2 - Students can comprehend and fluently read text.	4	38%	1 of 2	YES	NO	STRONG
12.3 - Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses.	5	78%	1 of 1	YES	YES	STRONG
12.4 - Students can interpret and respond to diverse, multicultural, and time period text.	3	20%	1 of 1	YES	NO	STRONG
12.5 - Students can access, analyze, synthesize, and evaluate informational texts.	1	67%	1 of 1	YES	YES	STRONG

Table 5: Summary of Alignment for Reading across Grades K-2

	Linked	DOK	Coverage	
			Moderate	Strong
1 - Students can recognize and analyze words.	38	78%	0	3
2 - Students can comprehend and fluently read text.	46	57%	0	3
3 - Students can apply knowledge of text structures, Literary devices, and literary elements to develop Interpretations and form responses.	39	65%	1	2
4 - Students can interpret and respond to diverse, multicultural, and time period text.	13	64%	0	3
5 - Students can access, analyze, synthesize, and evaluate Informational texts.	8	80%	0	2

For the K-2 grade cluster

- Linkage was strongly met for all reporting categories;
- DOK criterion was met for most reporting categories; and
- Coverage was strong for most reporting categories except *Students can access, analyze, synthesize, and evaluate Informational texts* for grade 1.

Table 6: Summary of Alignment for Reading across Grades 3-5

	Linked	DOK	Coverage	
			Moderate	Strong
1 - Students can recognize and analyze words.	22	83%	0	3
2 - Students can comprehend and fluently read text.	62	69%	0	3
3 - Students can apply knowledge of text structures, Literary devices, and literary elements to develop Interpretations and form responses.	29	50%	1	2
4 - Students can interpret and respond to diverse, multicultural, and time period text.	21	43%	0	3
5 - Students can access, analyze, synthesize, and evaluate Informational texts.	14	64%	1	2

For the 3-5 grade cluster

- Linkage was met for all reporting categories;
- DOK criterion was met for the required DOK criterion of 40% however *Students can*

apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses and Students can interpret and respond to diverse, multicultural, and time period text did not meet the required the criterion ; and

- Coverage was moderate for the *Students can apply knowledge of text structures, literary devices, and literary elements to develop interpretations and form responses* and *Students can access, analyze, synthesize, and evaluate informational text*, with strong dispersion for the other reporting categories.

Table 7: Summary of Alignment for Reading across Grades 6-8

	Linked	DOK	Coverage	
			Moderate	Strong
1 - Students can recognize and analyze words.	21	10%	0	3
2 - Students can comprehend and fluently read text.	29	49%	0	3
3 - Students can apply knowledge of text structures, Literary devices, and literary elements to develop Interpretations and form responses.	8	56%	1	1
4 - Students can interpret and respond to diverse, multicultural, and time period text.	3	96%	0	1
5 - Students can access, analyze, synthesize, and evaluate Informational texts.	14	79%	1	1

For the 6-8 grade cluster

- Linkage criterion was met for all reporting categories, except *Students can interpret and respond to diverse, multicultural, and time period text*;
- DOK criterion was met for most reporting categories; and
- Coverage was strong or moderate for majority of reporting categories.

Table 8: Summary of Alignment for Reading across Grades 9-12

	Linked	DOK	Coverage	
			Moderate	Strong
1 - Students can recognize and analyze words.	12	5%	0	4
2 - Students can comprehend and fluently read text.	23	63%	0	4
3 - Students can apply knowledge of text structures, Literary devices, and literary elements to develop	22	78%	0	4

Interpretations and form responses.				
4 - Students can interpret and respond to diverse, multicultural, and time period text.	16	72%	0	4
5 - Students can access, analyze, synthesize, and evaluate Informational texts.	6	78%	0	4

For the 9-12 grade cluster

- Linkage criterion was met for all reporting categories;
- The DOK criterion was met for the required DOK criterion of 40% for most reporting categories; and
- Coverage was strong for all reporting categories.

Mathematics Alignment Results

Table 9 presents the summary of the alignment for Mathematics across Grades K-12. Again, the first set of columns present alignment statistics and the second displays alignment findings based on the criteria set forth in the previous section. The Linking criterion was met for the majority of reporting categories. For example, all reporting categories at grade K-12 were linked, except for the *Statistics and Probability* reporting category in grade K, 3 and 9-12. In Grade 3-5, reporting categories were mostly linked to WIDA standard. The only exception to this was the *Statistics and Probability* for grade 3. Linkage at grade 6-8 showed that an overwhelming number of reporting categories were linked to WIDA standard. For Grades 9-12, the Linking criterion was adequately met; however, Grades 9-12 advanced showed that the *Measurement*, *Number Sense*, and *Statistics and Probability* reporting categories were not linked.

Tables 10 through 13 summarize the alignment results for mathematics across grade clusters. Again, to meet the Linkage criterion at least 1 linked WIDA Consortium ELP standard should be identified for each South Dakota standard reporting category across grades. To meet the Correspondence criterion DOK should be $\geq 40\%$ across each reporting category, and there should be moderate or strong coverage across reporting categories. Adequate alignment would be represented by acceptable Linking and Correspondence.

Table 9: Summary of Alignment for Mathematics across Grades K-12

Standards	(Standards-to-Standards) Alignment Criteria			
	Alignment Statistics		Alignment Findings	
	Linked	Correspondence	Linked	Correspondence

		DOK	Coverage		DOK (40%)	Coverage
Grade K (with 4 Panelists)						
K.1 Algebra	7	93%	2 of 10	YES	YES	STRONG
K.2 Geometry	5	90%	1 of 5	YES	YES	MODERATE
K.3 Measurement	11	96%	2 of 6	YES	YES	STRONG
K.4 Number Sense	1	100%	1 of 15	YES	YES	MODERATE
K.5 Statistics and Probability	0	100%	0 of 3	NO	YES	LIMITED
Grade 1 (with 4 Panelists)						
1.1 Algebra	2	52%	1 of 14	YES	YES	MODERATE
1.2 Geometry	5	86%	3 of 5	YES	YES	STRONG
1.3 Measurement	2	44%	2 of 8	YES	WEAK	STRONG
1.4 Number Sense	13	98%	3 of 19	YES	YES	STRONG
1.5 Statistics and Probability	4	63%	2 of 5	YES	YES	STRONG
Grade 2 (with 4 Panelists)						
2.1 Algebra	3	81%	1 of 18	YES	YES	MODERATE
2.2 Geometry	5	91%	2 of 4	YES	YES	STRONG
2.3 Measurement	4	64%	2 of 8	YES	YES	STRONG
2.4 Number Sense	14	86%	3 of 19	YES	YES	STRONG
2.5 Statistics and Probability	3	69%	2 of 7	YES	YES	STRONG
Grade 3 (with 4 Panelists)						
3.1 Algebra	10	85%	5 of 13	YES	YES	STRONG
3.2 Geometry	6	84%	3 of 5	YES	YES	STRONG
3.3 Measurement	5	95%	1 of 6	YES	WEAK	MODERATE
3.4 Number Sense	9	84%	3 of 10	YES	YES	STRONG
3.5 Statistics and Probability	4	9%	1 of 5	NO	YES	MODERATE
Grade 4 (with 4 Panelists)						
4.1 Algebra	8	71%	3 of 13	YES	YES	STRONG
4.2 Geometry	7	100%	4 of 6	YES	YES	STRONG
4.3 Measurement	9	73%	2 of 9	YES	YES	STRONG
4.4 Number Sense	11	87%	2 of 14	YES	YES	STRONG
4.5 Statistics and Probability	4	38%	3 of 5	YES	NO	STRONG
Grade 5 (with 4 Panelists)						
5.1 Algebra	9	57%	4 of 10	YES	YES	STRONG
5.2 Geometry	8	100%	4 of 7	YES	YES	STRONG
5.3 Measurement	8	83%	1 of 5	YES	YES	MODERATE
5.4 Number Sense	10	81%	2 of 14	YES	YES	STRONG
5.5 Statistics and Probability	5	43%	3 of 8	YES	WEAK	STRONG

Standards		(Standards-to-Standards) Alignment Criteria				
		Alignment Statistics		Alignment Findings		
		Linked	Correspondence		Linked	Correspondence
			DOK	Coverage		DOK (40%) Coverage
Grade 6 (with 4 Panelists)						
6.1 Algebra	8	92%	3 of 13	YES	YES	STRONG
6.2 Geometry	7	80%	5 of 14	YES	YES	STRONG
6.3 Measurement	6	78%	2 of 8	YES	YES	STRONG
6.4 Number Sense	11	87%	5 of 12	YES	YES	STRONG
6.5 Statistics and Probability	2	75%	1 of 6	YES	YES	MODERATE
Grade 7 (with 4 Panelists)						
7.1 Algebra	11	81%	4 of 21	YES	YES	STRONG
7.2 Geometry	5	92%	2 of 8	YES	YES	STRONG
7.3 Measurement	8	88%	1 of 8	YES	YES	MODERATE
7.4 Number Sense	12	90%	5 of 11	YES	YES	STRONG
7.5 Statistics and Probability	2	84%	0 of 7	YES	YES	LIMITED
Grade 8 (with 4 Panelists)						
8.1 Algebra	8	92%	5 of 19	YES	YES	STRONG
8.2 Geometry	7	77%	4 of 8	YES	YES	STRONG
8.3 Measurement	8	94%	6 of 11	YES	YES	STRONG
8.4 Number Sense	6	98%	5 of 10	YES	YES	STRONG
8.5 Statistics and Probability	1	74%	0 of 6	YES	YES	LIMITED
Grades 9-12 (with 5 Panelists)						
9-12.1 Algebra	13	63%	5 of 14	YES	YES	STRONG
9-12.2 Geometry	7	80%	3 of 14	YES	YES	STRONG
9-12.3 Measurement	4	81%	2 of 6	YES	YES	STRONG
9-12.4 Number Sense	0	100%	0 of 16	YES	YES	LIMITED
9-12.5 Statistics and Probability	0	90%	0 of 13	YES	YES	LIMITED
Grade 9-12 Advanced (with 5 Panelists)						
9-12.1 Algebra	15	65%	4 of 25	YES	YES	STRONG
9-12.2 Geometry	8	54%	3 of 7	YES	YES	STRONG
9-12.3 Measurement	0	0%	0 of 3	NO	NO	LIMITED
9-12.4 Number Sense	0	100%	0 of 7	NO	YES	LIMITED
9-12.5 Statistics and	0	75%	0 of 14	NO	YES	LIMITED

Standards	(Standards-to-Standards) Alignment Criteria			
	Alignment Statistics		Alignment Findings	
	Linked	Correspondence	Linked	Correspondence
	DOK	Coverage		DOK (40%) Coverage
Probability				

Table 10: Summary of Alignment for the Mathematics across Grade K-2

	Linked	DOK	Coverage	
			Moderate	Strong
1 – Algebra	12	75%	2	1
2 - Geometry	15	89%	1	2
3 - Measurement	17	68%	0	3
4 – Number Sense	28	95%	1	2
5 – Statistics and Probability	7	77%	0	2

For the K-2 grade cluster

- Linkage criterion was met (even if barely so for the *Statistics and Probability* for grade K);
- DOK criterion of most reporting categories exhibited strong DOK consistency; and
- Coverage was strong or moderate for all reporting categories except for the *Statistics and Probability* for grade K.

Table 11: Summary of Alignment for the Mathematics across Grade 3-5

	Linked	DOK	Coverage	
			Moderate	Strong
1 – Algebra	27	71%	0	3
2 - Geometry	21	95%	0	3
3 - Measurement	22	84%	2	1
4 – Number Sense	30	84%	0	3
5 – Statistics and Probability	13	30%	1	2

For the 3-5 grade cluster

- Linkage criterion was met except for the *Statistics and Probability* for grade 3;
- DOK criterion was met for most reporting categories but the *Statistics and Probability* for grade 4 and 5 were weakly met the criterion; and
- Coverage was strong or moderate for all reporting categories.

Table 12: Summary of Alignment for the Mathematics across Grade 6-8

	Linked	DOK	Coverage	
			Moderate	Strong
1 – Algebra	27	88%	0	3
2 - Geometry	19	83%	0	3
3 - Measurement	22	87%	1	2
4 – Number Sense	29	92%	0	3
5 – Statistics and Probability	5	78%	1	0

For the 6-8 grade cluster

- Linkage criterion showed strong linkage for all reporting categories;
- DOK criterion of most reporting categories exhibited strong DOK consistency; and
- Coverage was strong or moderate for most reporting categories, with the *Statistics and Probability* reporting category showed limited coverage.

Table 13: Summary of Alignment for the Mathematics across Grade 9-12

	Linked	DOK	Coverage	
			Moderate	Strong
1 – Algebra	28	64%	0	2
2 - Geometry	15	45%	0	2
3 - Measurement	4	41%	0	1
4 – Number Sense	0	100%	0	0
5 – Statistics and Probability	0	83%	0	0

For the 9-12 grade cluster

- Linkage was good for most reporting categories except for the *Number Sense* and *Statistics and Probability* reporting categories;
- DOK criterion of all reporting categories exhibited strong DOK consistency except for the *Measurement* reporting category; and
- Coverage was generally dispersed, except for the *Measurement*, *Number Sense*, and *Statistics and Probability* reporting categories.

Science Alignment Results

Table 14 presents the summary of the alignment for science across K-12. Again, the first set of columns present alignment statistics and the second displays alignment findings based on the criteria set forth in the previous section. The Linking criterion was met for the majority of

the reporting categories. For grade K-12, Linkage was met for all reporting categories except for *Science, Technology, Environment, and Society* reporting category in grades 1 and 2. In grade 3-5, linkage was perfectly met for all grades. All reporting categories in each grade were linked to WIDA standard. Linkage at grade 6-8 showed that all reporting categories were linked, except for *Life Science* reporting category in grade 6. Grade cluster 9-12 exhibited an overwhelming number of reporting categories linked to WIDA standard for each grade, except for the *Earth/Space Science* reporting category.

Tables 15 through 18 summarize the alignment results for science across grade clusters. Again, to meet the Linkage criterion at least 1 linked WIDA Consortium ELP standard should be identified for each South Dakota standard reporting category across grades. To meet the Correspondence criterion DOK should be $\geq 40\%$ across each reporting category, and there should be moderate or strong coverage across reporting categories. Adequate alignment would be represented by acceptable Linking and Correspondence.

Table 14: Summary of Alignment for Science Across Grades K-12

Standards	(Standards-to-Standards) Alignment Criteria					
	Alignment Statistics			Alignment Findings		
	Linked	Correspondence		Linked	Correspondence	
		DOK	Coverage		DOK	Coverage
Grade K (with 4 Panelists)		64%			(40%)	
K.1 Nature of Science	10	62%	3 of 4	YES	YES	STRONG
K.2 Physical Science	13	75%	2 of 9	YES	YES	STRONG
K.3 Life Science	10	73%	3 of 4	YES	YES	STRONG
K.4 Earth/Space Science	5	58%	1 of 3	YES	YES	MODERATE
K.5 Science, Technology, Environment, and Society	2	0%	0 of 2	YES	NO	LIMITED
Grade 1 (with 4 Panelists)		80%				
1.1 Nature of Science	12	88%	2 of 5	YES	YES	STRONG
1.2 Physical Science	11	73%	3 of 8	YES	YES	MODERATE
1.3 Life Science	16	84%	4 of 9	YES	YES	STRONG
1.4 Earth/Space Science	11	71%	4 of 5	YES	YES	STRONG
1.5 Science, Technology, Environment, and Society	0	100%	0 of 2	NO	YES	LIMITED
Grade 2 (with 4 Panelists)		74%				
2.1 Nature of Science	7	76%	2 of 5	YES	YES	STRONG
2.2 Physical Science	12	73%	2 of 15	YES	YES	MODERATE

Standards	(Standards-to-Standards) Alignment Criteria					
	Alignment Statistics			Alignment Findings		
	Linked	Correspondence		Linked	Correspondence	
2.3 Life Science	14	76%	5 of 10	YES	YES	STRONG
2.4 Earth/Space Science	5	66%	3 of 7	YES	YES	STRONG
2.5 Science, Technology, Environment, and Society	0	100%	0 of 2	NO	YES	LIMITED
Grade 3 (with 4 Panelists)		97%				
3.1 Nature of Science	2	87%	0 of 10	YES	YES	LIMITED
3.2 Physical Science	7	97%	3 of 18	YES	YES	MODERATE
3.3 Life Science	12	100%	6 of 19	YES	YES	MODERATE
3.4 Earth/Space Science	9	100%	4 of 9	YES	YES	STRONG
3.5 Science, Technology, Environment, and Society	6	100%	1 of 4	YES	YES	MODERATE
Grade 4 (with 4 Panelists)		93%				
4.1 Nature of Science	6	86%	1 of 11	YES	YES	MODERATE
4.2 Physical Science	6	96%	4 of 17	YES	YES	MODERATE
4.3 Life Science	11	91%	4 of 13	YES	YES	MODERATE
4.4 Earth/Space Science	8	95%	3 of 8	YES	YES	MODERATE
4.5 Science, Technology, Environment, and Society	4	91%	2 of 8	YES	YES	MODERATE
Grade 5 (with 4 Panelists)		89%				
5.1 Nature of Science	3	63%	2 of 13	YES	YES	MODERATE
5.2 Physical Science	6	86%	4 of 14	YES	YES	MODERATE
5.3 Life Science	7	95%	6 of 17	YES	YES	MODERATE
5.4 Earth/Space Science	10	92%	7 of 10	YES	YES	STRONG
5.5 Science, Technology, Environment, and Society	3	100%	0 of 8	YES	YES	LIMITED
Grade 6 (with 5 Panelists)		92%				
6.1 Nature of Science	5	89%	2 of 10	YES	YES	MODERATE
6.2 Physical Science	6	94%	2 of 8	YES	YES	MODERATE
6.3 Life Science	0	100%	0 of 6	NO	YES	LIMITED
6.4 Earth/Space Science	3	86%	2 of 6	YES	YES	MODERATE
6.5 Science, Technology, Environment, and Society	5	93%	2 of 4	YES	YES	STRONG
Grade 7 (with 5 Panelists)		86%				
7.1 Nature of Science	6	77%	3 of 12	YES	YES	MODERATE
7.3 Life Science	14	91%	7 of 16	YES	YES	STRONG

Standards	(Standards-to-Standards) Alignment Criteria					
	Alignment Statistics			Alignment Findings		
	Linked	Correspondence		Linked	Correspondence	
7.5 Science, Technology, Environment, and Society	6	78%	2 of 4	YES	YES	STRONG
Grade 8 (with 5 Panelists)		78%				
8.1 Nature of Science	10	74%	2 of 14	YES	YES	MODERATE
8.2 Physical Science	7	72%	2 of 8	YES	YES	MODERATE
8.4 Earth/Space Science	10	83%	5 of 11	YES	YES	STRONG
8.5 Science, Technology, Environment, and Society	6	86%	2 of 4	YES	YES	STRONG
Grades 9-12 (with 4 Panelists)		67%				
9-12.1 Nature of Science	6	53%	2 of 21	YES	YES	MODERATE
9-12.2 Physical Science	5	81%	5 of 45	YES	YES	MODERATE
9-12.3 Life Science	10	70%	5 of 14	YES	YES	MODERATE
9-12.4 Earth/Space Science	0	67%	0 of 9	NO	YES	LIMITED
9-12.5 Science, Technology, Environment, and Society	3	0%	0 of 8	YES	NO	LIMITED
Grades 9-12 Advanced (with 4 Panelists)		66%				
9-12.1 Nature of Science	7	57%	1 of 9	YES	YES	MODERATE
9-12.2 Physical Science	9	76%	3 of 47	YES	YES	MODERATE
9-12.3 Life Science	10	46%	6 of 14	YES	WEAK	STRONG
9-12.4 Earth/Space Science	4	100%	0 of 17	YES	YES	LIMITED
9-12.5 Science, Technology, Environment, and Society	1	60%	1 of 2	YES	YES	STRONG

Table 15: Summary of Alignment for Science across Grades K-2

	Linked	DOK	Coverage	
			Moderate	Strong
1 - Nature of Science	29	75%	0	3
2 - Physical Science	36	74%	2	1
3 - Life Science	40	78%	0	3
4 - Earth/Space Science	21	65%	1	2
5 - Science, Technology, Environment, and Society	2	67%	0	0

For the K-2 grade cluster

- Linkage was met for all reporting categories;

- DOK criterion was met for the required DOK criterion of 40%; and
- Coverage was strong for most reporting categories, with the *Science, Technology, Environment, and Society* reporting category showed limited coverage.

Table 16: Summary of Alignment for Science across Grades 3-5

	Linked	DOK	Coverage	
			Moderate	Strong
1 - Nature of Science	11	79%	2	0
2 - Physical Science	19	93%	3	0
3 - Life Science	30	95%	3	0
4 - Earth/Space Science	27	96%	1	2
5 - Science, Technology, Environment, and Society	13	97%	2	0

For the 3-5 grade cluster

- Linkage was met for all reporting categories;
- DOK criterion was met for the required DOK criterion of 40%; and
- Coverage was strong for the *Earth/Space Science* reporting category, with moderate dispersion for the other reporting categories.

Table 17: Summary of Alignment for Science across Grades 6-8

	Linked	DOK	Coverage	
			Moderate	Strong
1 - Nature of Science	21	80%	3	0
2 - Physical Science*	13	83%	2	0
3 - Life Science**	14	96%	0	1
4 - Earth/Space Science*	13	85%	1	1
5 - Science, Technology, Environment, and Society	17	86%	0	3

*Statistical analysis of "Physical Science" and "Earth/Space Science" is based on grade 6 and 8 only due to the lack of these two goals in grade 7.

**Statistical analysis of "Life Science" is based on grade 6 and 7 only due to the lack of this goal in grade 8.

For the 6-8 grade cluster

- Linkage was met for all reporting categories;
- DOK criterion was met for the required DOK criterion of 40%; and
- Coverage was moderate for the *Nature of Science* and *Physical Science* reporting

categories, with strong dispersion for the other reporting categories.

Table 18: Summary of Alignment for Science across Grades 9-12

	Linked	DOK	Coverage	
			Moderate	Strong
1 - Nature of Science	13	55%	2	0
2 - Physical Science	14	79%	2	0
3 - Life Science	20	58%	1	1
4 - Earth/Space Science	4	84%	0	0
5 - Science, Technology, Environment, and Society	4	30%	0	1

For the 9-12 grade cluster

- Linkage was met for all reporting categories;
- DOK criterion was met for the required DOK criterion of 40%; and
- Coverage was generally dispersed except for the *Earth/Space Science* reporting category.

Reliability among Committee members

The following table shows the interclass correlations for each grade level, which indicate the degree of agreement among committee members in each group. Values larger than 0.7 indicate a good level of reliability among committee members; this criterion has been met for all of the groups in this alignment study. It should, however, be noted that these values are highly dependent on the number of committee members in each group. The pairwise comparison values represent the average agreement for pairs of committee members in each group. A result of 0.6 or higher reflects reasonable agreement, 0.7 or higher demonstrates good agreement, and a result of less than 0.5 to reflects poor agreement among committee members.

Table 19: Reliability among Committee members

Grade(s)	Standards	Number of standards	Number of Committee members	Interclass correlation	DOK Pairwise Comparison	Objective Pairwise comparison	Standard Pairwise Comparison
READING							
K	WIDA	25	4	0.72	0.47	0.29	0.40
1	Reading			0.87	0.59	0.12	0.34

Grade(s)	Standards	Number of standards	Number of Committee members	Interclass correlation	DOK Pairwise Comparison	Objective Pairwise comparison	Standard Pairwise Comparison
K-2							
2				0.87	0.61	0.21	0.34
3	WIDA Reading	25	4	0.96	0.78	0.37	0.45
4	3-5			0.96	0.78	0.27	0.37
5				0.96	0.78	0.22	0.34
6	WIDA Reading	25	5	0.93	0.68	0.37	0.49
7				0.94	0.67	0.25	0.38
8	6-8			0.94	0.70	0.16	0.29
9	WIDA Reading	25	4	0.91	0.55	0.18	0.37
10				0.91	0.55	0.20	0.44
11				0.91	0.55	0.18	0.37
12	9-12			0.91	0.55	0.15	0.35
MATHEMATICS							
K	WIDA Math K-2	20	4	0.85	0.53	0.64	0.70
1				0.79	0.44	0.40	0.67
2				0.74	0.38	0.37	0.66
3	WIDA Math 3-5	20	4	0.91	0.68	0.20	0.51
4				0.90	0.73	0.15	0.41
5				0.77	0.59	0.13	0.42
6	WIDA Math 6-8	20	4	0.93	0.72	0.14	0.44
7				0.88	0.63	0.13	0.39
8				0.81	0.60	0.18	0.40
9-12	WIDA Math	20	5	0.93	0.63	0.27	0.62
9-12 (Advanced)	9-12			0.94	0.65	0.20	0.69
SCIENCE							
K	WIDA Science	20	4	0.57	0.4	0.30	0.49
1				0.82	0.45	0.23	0.44
2	K-2			0.83	0.43	0.17	0.45
3	WIDA Science	20	4	0.82	0.63	0.16	0.43
4				0.77	0.53	0.19	0.42
5	3-5			0.84	0.52	0.16	0.51
6	WIDA	20	5	0.95	0.65	0.25	0.49

Grade(s)	Standards	Number of standards	Number of Committee members	Interclass correlation	DOK Pairwise Comparison	Objective Pairwise comparison	Standard Pairwise Comparison
7	Science			0.95	0.60	0.21	0.55
8	6-8			0.95	0.60	0.24	0.48
9-12	WIDA	20	4	0.88	0.70	0.20	0.56
9-12 (Advanced)	Science 9-12			0.90	0.64	0.11	0.51

3. Summary

Findings from this alignment study generally suggest that there is strong *linkage* between the WIDA model performance indicators in Reading, Mathematics, and Science and the South Dakota Content Standards in Reading, Mathematics, and Science. Federal guidance on the association between ELL and state content standards directs that, at a minimum, ELL Standards must be *linked* to state academic content standards. In terms of alignment, the Committee members' ratings indicate that there is moderate alignment between the WIDA MPIs and the South Dakota standards in Reading, Mathematics, and Science. This is primarily due to limited Coverage and linkage.

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Appendix A

General Comments by Committee members

This section includes committee member responses to the general debriefing questions listed in Part II of the WAT Training Manual as well as any generalizations or comments by the group leaders or program administrators. The following table provides a summary of these comments:

Table 20: Committee members' Perceptions of Alignment Between South Dakota Content Standards in Reading, Mathematics, and Science and the WIDA ELP Standards		
Acceptable Alignment	Needs Slight Improvement	Needs Major Improvement
30%	60%	10%
Summary of Committee member Comments by Content Area		
READING	The standards seem most related to literary analysis. The WIDA ELP standards correlated with some literary analysis, but could include more. The standards did not relate well to practical literacy skills and content-specific literacy skills & vocabulary comprehension & use. However it is a challenge to compare the South Dakota content standards and WIDA ELP standards.	
MATH	The higher level of cognitive skills was neglected for entire areas of the content standards, and for entering and beginning level ELLs. The WIDA standards are broader and the South Dakota standards are specific, which made it somewhat difficult to align the two.	
SCIENCE	The WIDA standards covered the most important topics of the South Dakota standards. The range of language tasks addressed by the WIDA standards was appropriate, but a portion of science content was not covered by the WIDA standards. The DOK levels for the WIDA standards generally corresponded to those for the South Dakota standards; however, the DOK 3 and 4 levels were	

Table 20: Committee members' Perceptions of Alignment Between South Dakota Content Standards in Reading, Mathematics, and Science and the WIDA ELP Standards

	not represented by the WIDA standards.
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South Dakota WIDA Alignment, Reading, Grade K-2

A. For each standard, did the items cover the most important topics you expected by the standard? If not, what topics were not assessed that should have been?

- It is very challenging to compare language standards to content standards. It took time for me to how WIDA correlated with SD content standards.
- Yes. Overall I feel they did. It is really open to interpretation of the person aligning. There were a few that did not match, but other items could be adapted to fit.
- I had no expectations? I am really quite confused about what we specifically accomplished in this alignment. Yes. I do believe that the standards most pertinent were well addressed
- Most but not all of the SD standards were covered. K.R. 1.3, 3.2, 5.2 1.R. 1.1, 1.2, 1.4, 1.7, 3.3, 5.2 2.R. 3.1, 3.3, 5.2

B. For each standard, did the items cover the most important performance (DOK levels) you expected by the standard? If not, what performance was not assessed?

- Again, I didn't know what I expected I'm learning. I am somewhat challenged with the alignment process.
- I felt that the DOK levels covered the items within the standards, and the majority of performances were covered. The DOKs were very easy to interpret and understand.
- Yes.
- Yes.

C. Were the standards written at an appropriate level of specificity and directed towards expectations appropriate for the grade level?

- I think so - SD teachers put a lot of work into writing the standards for their grade levels. I could understand the standards written for each grade K-2 levels that we worked with. It was aligning to the WIDA standards that was

challenging.

- The standards were appropriate for grade level. They were not too specific which was a positive and a negative, open for interpretation. I guess that helps gather better data.
- There seemed to be a lot of confusion about what several of the WIDA standards meant. The items were open to interpretation.
- Yes they were written at grade level.

D. What is your general opinion of the alignment between the standards and assessment:

- Acceptable Alignment (2) : 50%
- Needs slight improvement (2) : 50%

E. Comments

- IS our purpose to align WIDA with SD or vice-versa? Shouldn't we be aligning our current ELL standards with WIDA's or vice -versa? I would like to see a checklist of what is required of ESL student coming into our classroom and help them accomplish by the time they exit from the program. I know it would be different for each student. But it would be great to have a foundation list. Does this exist?
- It was an interesting experience, one I definitely learned from. I now have a greater understanding of the SD & WIDA standards.
- Hopefully the process works and we can "trust the process."

South Dakota WIDA Alignment, Reading, Grade 3-5

A. For each standard, did the items cover the most important topics you expected by the standard? If not, what topics were not assessed that should have been?

- Overall, I felt the items covered the most important topics. There were a lot of compare/contrast, interpret, identify and apply standards. That's good! There seemed to be a lot of standard dealing w/ charts and graphics.
- I thought the standards were well covered.
- We did not focus on the topic but rather we were told to focus on the "verb" or process involved in the content (topic). So I don't feel like I can answer this.

- For the most part, the main topics were covered by the standards. However, it was a stretch to link certain WIDA standards to the SD standards. The correlation between the standards was not always clear-cut. I feel that research was one topic that wasn't covered very well along with certain literary elements and devices.

B. For each standard, did the items cover the most important performance (DOK levels) you expected by the standard? If not, what performance was not assessed?

- Not as many level 4s were used. There seemed to be a lot of 2s. I would like to see a few more 4s and 3s.
- On the most part, the performances were covered. I would have liked to see more of level 4 as that, to me, is where the student takes ownership of his/her learning.
- Yes.
- I don't think that there was a very good balance between the DOK levels in regard to the standards. We need to make sure that all DOK levels are equally represented throughout the standards. Also, it seemed difficult (at times) to decide which DOK level to apply to which standard.

C. Were the standards written at an appropriate level of specificity and directed towards expectations appropriate for the grade level?

- Yes.
- I thought they were written well.
- Yes. I think, however, it was difficult to not focus on the topic (e.g., leisure activity) and focus on the verb (e.g., locate... information).
- I think that the standards were appropriate for the grade level, but the standards were very open to interpretation. Certain standards could be slightly more specific.

D. What is your general opinion of the alignment between the standards and assessment:

- Acceptable Alignment (1) : 25%
- Needs slight improvement (3) : 75%

E. Comments

- I felt like it was difficult to align them. I've done other alignment studies and I felt that this was very challenging. Sometimes I felt that I really had to stretch to find a link.
- Very good session.
- This process made more sense when we were asked to try to "link" and not align the standards from SD and WIDA.
- Certain standards aligned very well, but there were some that do need to be improved to have a better alignment.

South Dakota WIDA Alignment, Reading, Grade 6-8

A. For each standard, did the items cover the most important topics you expected by the standard? If not, what topics were not assessed that should have been?

- The use of verbs in the state & WIDA standards cover excellent skills but I question whether the topics of cohesive writing & vocabulary are addressed to the degree necessary for the academic success of ELL students?
- My understanding of this process was that I was to be concerned with the verb and if an ELP student could understand the verb - and that I was not to be concerned with the topic.
- Oral and visual difference is not reflected in the standards. Prediction Select reasons
- Very little on literary elements.
- Yes, for the most part, WIDA standards talk about visual support...SD standards do not indicate this.

B. For each standard, did the items cover the most important performance (DOK levels) you expected by the standard? If not, what performance was not assessed?

- Many of the WIDA standards seem to be focused on the lower DOK levels.
- Yes, it did.
- Levels 1 & 4 are not covered as much as levels 2 & 3.
- Thought there should be some/more 4s.

- Yes.

C. Were the standards written at an appropriate level of specificity and directed towards expectations appropriate for the grade level?

- Yes.
- Yes, I believe they were for the most part.
- I think, yes, they were at an appropriate level.
- Yes.
- Yes.

D. What is your general opinion of the alignment between the standards and assessment:

- Acceptable Alignment (1) : 20%
- Needs slight improvement (3) : 60%
- Needs major improvement (1) : 20%

E. Comments

- The alignment is difficult because it is unclear how the terminology connects? The general ideas seem to relate in the context of language arts/reading. The personal interpretation of the verbs made it difficult to connect the two standards.

South Dakota WIDA Alignment, Reading, Grade 9-12

A. For each standard, did the items cover the most important topics you expected by the standard? If not, what topics were not assessed that should have been?

- SD standards were too hung up on literary terms and picky things like author's style, author's purpose, fallacies, diction. WIDA standards approach academic language that can apply across contents.
- My problems are more with the SD standards than with WIDA items. To me, the items covered a good range of skills and correlated most successfully to standard indicators.
- Basic - fact finding, fact, opinion (included under comprehension strategies?)

- Important topics were covered.

B. For each standard, did the items cover the most important performance (DOK levels) you expected by the standard? If not, what performance was not assessed?

- All DOKs were covered.
- The standards seem most related to literary analysis. The WIDA items correlated with some literary analysis, but could include perhaps a little more. The standards did not relate well to practical literacy skills and content-specific literacy skills & vocabulary comprehension & use. The WIDA items do a good job of assessing these types of skills.
- Yes.
- Yes.

C. Were the standards written at an appropriate level of specificity and directed towards expectations appropriate for the grade level?

- SD standards are too specific on what I consider unimportant things for ELL students. WIDA standards raise expectations for ELL students and attack skills they need.
- No. The standards were not satisfactorily specific - very limited* with either too general or focused on unnecessarily specific skills, i.e. "10.R.5.1: students can recognize logical fallacies in sources." * in number - there need to be more standards for each indicator.
- Somewhat - some standards too specific for a specific match. Had to stretch the alignment for a match.
- Yes.

D. What is your general opinion of the alignment between the standards and assessment:

- Acceptable Alignment (1) : 25%
- Needs slight improvement (1) : 25%
- Needs major improvement (2) : 50%

E. Comments

- Some 9th graders enter our schools at emergent level which is difficult to match with mainstream standards. Some small schools often have only one or two students per grade so there are no sheltered classes. Much collaboration is necessary - at many different levels.
- This was a challenging task, yet a great experience.

South Dakota WIDA Alignment, Mathematics, Grade K-2

A. For each standard, did the items cover the most important topics you expected by the standard? If not, what topics were not assessed that should have been?

- Yes, but having just been exposed to the item, I don't feel I have a good enough understanding of all they are addressing to make a blanket statement.
- Yes.
- I didn't feel that K algebra was addressed. Most did cover the standards.
- It is not possible for all of the items to meet all of the standards. I do feel that the items are appropriate for ELL students. It is very important for language standards to be met before content standards can be met.

B. For each standard, did the items cover the most important performance (DOK levels) you expected by the standard? If not, what performance was not assessed?

- No. I felt there should have been more at level 3. I also did not determine that level 4 was addressed at all. None seemed to expect higher level multi step thinking in my opinion.
- Yes.
- Yes.
- Yes...I feel that the items covered needed to be at a lower DOK level considering that ELL students are just grasping the language.

C. Were the standards written at an appropriate level of specificity and directed towards expectations appropriate for the grade level?

- Yes. The progression is apparent through the grade configuration.

- Yes.
- I felt they were at grade level.
- Yes. However, I do not teach at the grade level I was assigned to view. But it does seem that the standards are appropriate.

D. What is your general opinion of the alignment between the standards and assessment:

- Acceptable Alignment (1) : 25%
- Needs slight improvement (3) : 75%

E. Comments

- Varying the verb choice in the SD standards to create a broader amount of demonstration of mastery would help strengthen the alignment, in my opinion.
- The most difficult thing about doing this alignment study was the fact that there was no right answer. It is a matter of interpretation. I know the hope was that there would be more people here- I feel more people in each group would have made our results more valid.

South Dakota WIDA Alignment, Mathematics, Grade 3-5

A. For each standard, did the items cover the most important topics you expected by the standard? If not, what topics were not assessed that should have been?

- For the most part, I am not fluent with knowing what is expected in 3-5 math so it was difficult to be confident.
- For the most part, the items covered the topic. Sometimes it was difficult to find a common link between the standards and the items. Sometimes I felt that measurement was not included as much as the other topics.
- Yes.
- Yes. It seemed that they very basic levels were addressed so that the indicated or entry level skills were inoperated.

B. For each standard, did the items cover the most important performance (DOK levels) you expected by the standard? If not, what performance was not assessed?

- These seemed to be more level 1 DOK's than any other.
- Levels 3 and 4 were not present very often. I do realize that ESL students do not have a receptive language to do these higher performance levels. As their language skills grow, their level of performance will also improve.
- Yes.
- As more understanding and higher cognitive levels like analysis and synthesis and applicator are extended through the content areas, greater language skills are needed to both communicate to the learner and for the learner to demonstrate understanding. It appeared that the DOK for the standards best lit levels 1 and 2 but did not go into the depth of levels 3 and 4 often. I assume that by DOK 3 and 4, the proficiency levels of the ELL allow them to move on into the content classroom with only monitored support.

C. Were the standards written at an appropriate level of specificity and directed towards expectations appropriate for the grade level?

- The standards were specific, but the items were difficult to understand and I can see where educators will be challenged to use them to match with the standards.
- I feel the standards were written very well and did fit the appropriate grade level. The standards were easy to understand.
- Yes.
- I felt the standards of SD were pretty clear.

D. What is your general opinion of the alignment between the standards and assessment:

- Acceptable Alignment (3) : 75%
- Needs slight improvement (1) : 25%

E. Comments

- This was a good experience.
- The items were very vague and difficult to grasp the meaning. This made it difficult to align them with the standards. Many standards did not align with the items.

- Each learner comes with unique background and learning styles. The alignment provides a framework for acquiring the language to support the learning content. The teachers both ELL and content area-will be constantly making daily instructional decisions framed by the WIDA assessment but informed by informal formative assessments and the content. This is a starting point.

South Dakota WIDA Alignment, Mathematics, Grade 6-8

A. For each standard, did the items cover the most important topics you expected by the standard? If not, what topics were not assessed that should have been?

- I think that the standards not addressed were the more basic skills necessary in the scaffold to attain higher level math.
- Most of the standards were covered. However there were a few not covered. 6th grade -- 1) mean, mode, range, 2) probability 7th grade -- 1) translation, rotation, reflection, 2) mean, median, mode, and range, 3) probability 8th grade -- 1) slope, 2) mean, median, mode and range, 3) probability
- Statistics was the topic least covered.
- No- for math many of the statistic standards did not align with the items.

B. For each standard, did the items cover the most important performance (DOK levels) you expected by the standard? If not, what performance was not assessed?

- Level 4 of the DOK did not seem to have standards covered at this level. I am not sure of what mathematical model would address the level 4.
- Sometimes the item was a lower level of performance. For example, identify versus compute. However the language requires students to be able to identify what they are learning about before applying that knowledge and learning how to use. The language items did not seem to have much "justification" of thinking or doing. If a student can explain his/her thought process, the more proof of their understanding and the deeper the understanding.
- The standards were covered very well by the DOK descriptors.
- Yes.

C. Were the standards written at an appropriate level of specificity and directed towards expectations appropriate for the grade level?

- In regard to ELL students, I think the standards do not address the more basic skills and vocabulary necessary for these students.
- Yes.
- Acceptably appropriate.
- Yes.

D. What is your general opinion of the alignment between the standards and assessment:

- Acceptable Alignment (1): 20%
- Needs slight improvement (4) : 80%

E. Comments

- In my opinion the alignment needs slight improvement. It was difficult to correlate the descriptors with the standards. The wide variety of verbs made it difficult to determine the appropriate standard for each level.
- I believe the alignment is nearly a good match but could use some tweaking to include probability and statistics. Otherwise it was a good fit.

South Dakota WIDA Alignment, Mathematics, Grade 9-12

A. For each standard, did the items cover the most important topics you expected by the standard? If not, what topics were not assessed that should have been?

- There is a lack of Number sense-identify multiple representations, place value, magnitude, scientific notation, etc., estimation Statics/Data Analysis-conclusions from data set; range, IQR, mode, median; graphs.
- Statistics & number sense standards not addressed & the advanced measurement was not addressed.
- For MA-High-1 there were some SD standards that were not included; especially the statistics and number sense.
N1.1,N1.2,N2.1,N3.1,N3.2,S1.1,S1.2,S1.3,S2.1,S2.2-Never used these! For MA-High Adv-1 there were some SD standards not included. There was (again) very little emphasis on statistical terms and number sense terms.
- Limited coverage of number sense standards though students have to have the number skills to do the algebra & geometry standards. Many of the elements in the WIDA standards for geometry are addressed in the state's 6-8 standards.
- Most important-yes-number sense & Algebra Least assessed-statistics

B. For each standard, did the items cover the most important performance (DOK levels) you expected by the standard? If not, what performance was not assessed?

- There aren't many level 1. There needs to be some success.
- Other than the standards mentioned above there seemed to be a good coverage of DOK levels.
- From above-the performance in statistical math was limited. There need to be more coverage in terms like: mean, median, mode, box-and-whiskerplots, scatterplots, histograms, stem and leaf plots, probability, etc. Also the coverage of number sense seemed limited. Example: Complex #, real #, imaginary #, rational vs. irrational #s-this can often be a large aspect of communication.
- Level 4 is limited but it is difficult to find level 4 standards for the most part in any set of standards.
- I believe so-yes

C. Were the standards written at an appropriate level of specificity and directed towards expectations appropriate for the grade level?

- In some instances the overall indicators were better than the specific. They were appropriate for grade level.
- The standards being written for 9-12 & core & advanced lack specificity and are at multiple grade levels.
- Notice standards are a 9-12 set of standards and are not specific to each specific grade level.
- For 9-12 mathematics, the WIDA standards seem to focus more on geometry and graphing than on some of the other math skills & vocabulary.
- Yes.

D. What is your general opinion of the alignment between the standards and assessment:

- Acceptable Alignment (1) : 20%
- Needs slight improvement (2) : 40%
- Needs major improvement (2) : 40%

E. Comments

- State standards have some odd specifics and leave out others. There is a question of the need to align with the high school advanced standards. These are not required of general student population.
- The MPI's were weighted too much toward the Algebra & Geometry.
- The MPI's did cover the vocabulary needed for many of the algebra and geometry standards. Some of them seemed repetitive and may be able to be combined if this study determines that some standards are hit much more heavily than others. I will strongly suggest the addition of some number sense and statistical language.
- Statistics & Probability very limited as is number sense for the high school standards. For High School Adv-the fact that the 9-12 Adv Math Standards are not aligned to any other assessment make it difficult to justify the alignment for ELP purposes. The state SYP test (DSTEP) only tests core standards for grade 12.

South Dakota WIDA Alignment, Science, Grade K-2

A. For each standard, did the items cover the most important topics you expected by the standard? If not, what topics were not assessed that should have been?

- I do think that the items covered the most important topics I expected for the primary level.
- Yes.
- Some standards are too broad and general. N1 can relate to anything, it should be more specific.
- I believe so. It is sometimes difficult to "begin" the process (as we did in this work group); but as time evolved the process became easier. Additionally, as the grade level increased, the items became easier to assign a description and DOK to. (Not: simple observation/parts of a whole)

B. For each standard, did the items cover the most important performance (DOK levels) you expected by the standard? If not, what performance was not assessed?

- I feel the DOK levels were appropriate for the primary levels.
- Yes.
- It is not very clear the difference between visual and oral assignments, I can't see it reflected in the standards.
- Some - depended on the grade level and skill being "evaluated." Because kindergarten skills (content AND language), the broadness of the standards create a vagueness. This is not the fault of the company - instead - it is the nature of the beast. Yet all four DOK levels were represented in each grade.

C. Were the standards written at an appropriate level of specificity and directed towards expectations appropriate for the grade level?

- I feel the WIDA MPIs were more specific as to how the item was to be expressed, such as "using words or phrases," "oral statements," "oral scenarios" or "produce drawings." The SD standards seemed to state the skill expected but did not get as specific as to how that skill should be expressed or measured. I would rather have the SD standards be more open ended in that way - as they already are.
- I'd like more specificity for E.2, S.1, and S.2.
- Some standards are a little too vague. S.1, P.3, N.1.
- Yes.

D. What is your general opinion of the alignment between the standards and assessment:

- Acceptable Alignment (1) : 25%
- Needs slight improvement (2) : 75%

E. Comments

- It is great to work with and interact with other educators. The general atmosphere of the group was calm. Everything was handled well by SD DOE staff and by WIDA staff. I enjoyed the experience and look forward to further opportunities.

South Dakota WIDA Alignment, Science, Grade 3-5

A. For each standard, did the items cover the most important topics you expected by the standard? If not, what topics were not assessed that should have been?

- I had difficulty matching some items to standards because of "verb" being lower than what we expected a "3rd" grader to accomplish.
- Some standards were addressed more than others Nature of science Technology-or was technology, environment & society assumed? Seems astrology was addressed more.
- 3rd gr science: no WIDA items addressed topic of environment, how living things depend on each other and environment, recycling. 4th gr science: no WIDA items for force or energy, biological change, how organisms linked to environment, food chains, environment, inventions. 5th gr science: no WIDA items for force & effect on motions, interactions of energy & matter, photosynthesis, ecosystems, environment.
- As a regular classroom teacher I have minimal (most years, none) numbers of students who speak a language other than English in their homes. Thus, I'm not sure what topics ELL teachers would have wished to be addressed -- sorry!

B. For each standard, did the items cover the most important performance (DOK levels) you expected by the standard? If not, what performance was not assessed?

- Needed more 3's and 4's.
- It appeared that the basic - recall of information was used more. Doesn't appear that in depth performance was addressed.
- Yes.
- Yes, it was also interesting to take a closer look at the SD standards as we coded them and see the overbalance of 1s & 2s compared w/ 3s & 4s. Yet, in the classroom these standards seem to "match" the abilities of most students. That is not the most comforting thought, but it is the reality of the thought.

C. Were the standards written at an appropriate level of specificity and directed towards expectations appropriate for the grade level?

- At first they seem to be too low, but after some thought, I decided they were pretty close to what an ELP student could handle.

- Standards progressed across grade levels from simplistic to complex.
- Yes, however standards lack the language component -- exactly why we need WIDA alignment.
- Again, with minimal to no interactions with teaching ELL students, it is difficult to say. Coming into this process at this stage, the standards seem in-line with the grade levels. It has given me food for thought on considering additional ways/means of communicating language (& the importance of) within the regular education classroom.

D. What is your general opinion of the alignment between the standards and assessment:

- Needs slight improvement (3) : 75%

E. Comments

- Confusing I feel fried.
- This was very beneficial for me (as an ESL teacher).
- Part/Day 1 was very interesting & most helpful for Part 2. It was also helpful to have the power point overview to offer focus & explanations in a variety of ways for the terminology & expectations. On Part 2, it was difficult, initially, for me to work as some groups were still talking & it was a bit hard to concentrate. Things were fine after about 15 minutes. Thanks for an interesting two days!

South Dakota WIDA Alignment, Science, Grade 6-8

A. For each standard, did the items cover the most important topics you expected by the standard? If not, what topics were not assessed that should have been?

- For the most part - though some were a stretch; however, a good teacher could adapt.
- I expected to see more emphasis on grasping the basic content vocabulary on the WIDA standards. I feel there must be a focus on content vocabulary before student can master other content standards.
- 6th gr.-no topics of earth science & very little on life science. 7th gr.-OK 8th gr.-need more on earth science.
- Sequencing-->SD state standards do not have Scientific Investigation.

- For the most part, but scientific investigations are not covered in WIDA standards. Also, WIDA has sequencing but that is difficult to find in state content standards.

B. For each standard, did the items cover the most important performance (DOK levels) you expected by the standard? If not, what performance was not assessed?

- It was OK.
- I do believe the items covered the most important DOK levels. I expected to see more ones and twos at the DOK level considering the fact that students are trying to master the language.
- I expected to see more "analyze" and "explain" MPIs.
- Yes.
- Yes.

C. Were the standards written at an appropriate level of specificity and directed towards expectations appropriate for the grade level?

- OK - 7th/8th were easier (by far) than 6th.
- The standards were written at an appropriate level of specificity for the grade levels.
- Yes.
- Yes.
- Yes.

D. What is your general opinion of the alignment between the standards and assessment:

- Acceptable Alignment (2) : 40%
- Needs slight improvement (3) : 60%

E. Comments

- Always, always enjoy the teachers. They are the best!
- Need chocolate next time!

South Dakota WIDA Alignment, Science, Grade 9-12

A. For each standard, did the items cover the most important topics you expected by the standard? If not, what topics were not assessed that should have been?

- I felt that there should have been more coverage of the "nature of science" and more on "Technology, Environment, and Society."
- 12 general standards for both levels. However, I only found 3 standards covered. Those not assessed were: (N.1-N.1.2.c) (N.2-N.2.2.e) (P.1.1.b, P.1.1.c, P.1.2.a-P.1.4.a, P.1.5.a-P.1.5.e) (P2-P.2.a) (P.3-P.3.3.a)(L.1.1, L.2.1, L.2.1.a, L.2.1.b, L.2.2.a, L.3.1, L.3.1.a) (E.1-E.1.3)(E.2, E.2.1, E.2.1.a)(S.2-S.2.3). Those that should have been covered were: N.1, N.2, P.2, P.3, E.1, E.2 & S.2.
- SD standards tend to be written above the basic skills needed to do things. The earlier (entering, beginning) levels were enabling, but not specifically represented.
- Matching the MPIs and SD standards. I thought the SD standards could address life cycles more. The SD standards have a set of lab techniques (N.2.2-N.2.2.e). Perhaps there could be a set of using graphics, diagrams...I'm guessing this is in the SD standards at an earlier level.

B. For each standard, did the items cover the most important performance (DOK levels) you expected by the standard? If not, what performance was not assessed?

- I found very few DOK Level 4 items. With adequate language support, I think ELL students should be able to do Level 4 tasks.
- DOK levels for general high school are very low-I was expecting higher levels of thinking-but perhaps that could only be assessed in the student's first language. The advanced high DOKs were a little higher but again-if we do not assess to higher levels then students will not perform at those levels. I realize that this (WIDA-MPI) was in English only and that thought processes at a higher level can only be assessed in child's first language.
- The extended nature at the descriptors for Level 4 DOK did not seem well represented in the WIDA items on SD science standards. There is considerable calculation in the SD standards. The WIDA items could be taken to imply calculation, but if that is the intent it would be could to make it specific.

- I was surprised that there were so few 3 and 4 DOK levels. What we concluded as a group is that some standards would rise to those levels depending upon the project, teacher expectations and student involvement. We were guided by the language of the standard and were conscientious not to push the DOK above what was stated. In practice, it is probable that many standards would reach a higher DOK.

C. Were the standards written at an appropriate level of specificity and directed towards expectations appropriate for the grade level?

- Seemed to be at an appropriate level.
- SD standards for general high school seemed to be written for lower expectations-realizing that standards are minimal. The advanced level seemed to be written for higher levels-perhaps should be used for ALL students.
- HS Science had only 2 levels. The standards are generally specific on content, but not so good on the underlying thinking skills needed (my view at least). They seem appropriate for grade level (advanced more difficult than the general standards).
- I believe the expectations are appropriate to the grade level. I was concerned that the specificity was aligned with a textbook series and might be difficult to teach/learn if the district uses a different series.

D. What is your general opinion of the alignment between the standards and assessment:

- Acceptable Alignment (1) : 25%
- Needs slight improvement (3): 75%

E. Comments

- I appreciate the opportunity to be a part of this study. I am glad that S. Dakota has become a member of WIDA. With a district that serves the air base and Native American population, I hope that this process can help provide better understanding of ELL students and programs and get it out of the SpEd umbrella. ELL students should not be treated as SpEd and there should not be territorial fights between SpEd and ELL.

- What an interesting two days of professional development opportunity-Thank you-The discussions to reach consensus were the most valuable for me.
- Acceptable if one first accepts that enabling objectives are part of the WIDA items but not specified in the SD Science standards.
- The biggest difficulty I had was bridging the very specific SD standards with the broad MPIs. I was able to find SD standards that fit within each MPI. Also, the MPIs state "how" the student will acquire the academic knowledge. In the SD standards, this was not usually the case except when the diagram or graphic organizer was the goal, such as the periodic table. The weakest links were the food chain/life cycle MPIs. The SD standard matches were either too broad or too specific. Also, the MPIs dealing with data through graphics fits better as study skills. Once again, a clash of the how with the what. I know that the SD standards are set, but I wonder if it follows a specific textbook series and what problems that might incur for schools without that series.

Appendix B

Example of Linking and Non-Linking Standards

The following illustrates cases of linking and non-linking of standards for mathematics at the 6-8 grade cluster.

South Dakota Content Standards (Mathematics) Grade 6

Indicator 4: Describe and use properties and behaviors of relations, functions, and inverses.

6.A.4.1. Students are able to use concrete materials, graphs and algebraic statements to represent problem situations.

- Recognize, describe, and extend arithmetic sequences and patterns.

Example: Mary has one carnation. Every day she gets 3 more carnations.
On the fifth day how many carnations does Mary have?

- Use variables to represent given quantities in problem situations.

Example: A beetle has six legs. How many legs are on n beetles?

WIDA Level 2, Grade Cluster 6-8, Reading

“Classify written examples supported visually of math procedures used in real world problems (such as perimeter or area)”

State A’s ELP Standard, Level 2, Grade Cluster 6-8, Reading

“Recognize math symbols and terms”

The above two expectations are taken from actual states’ ELP standards. Both are associated with mathematics; both are at level 2 and address the domain of reading. The WIDA standard focuses on classification of real world mathematics procedures, with perimeter and area given as examples. As can be seen, this standard closely associates (or links) with South Dakota’s mathematics standard 6.A.4.1

State A’s ELP mathematics standard is addressing recognition, but this is vague and unfocused. What math symbols and terms are to be addressed? Number Operations? Addition/subtraction symbols? Geometry? The lack of clarify in this standards would make it difficult to link to any particular standard; hence, this ELP standard is NOT linked to South Dakota’s content standard 6.A.4.1.

The goal in linking ELP standards to content expectations deals with both specificity and appropriate discourse function. The WIDA ELP example is specific and provides an appropriate discourse function: classify. While State A's ELP example does provide an appropriate language function (recognize) it is too is vague.